

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

1. (currently amended) A system having a first controller of a virtualization system and a second controller of a disk array system, said second controller being coupled to said first controller, said system performing data processing according to a request from a host device,

wherein said first controller conducts mapping such that relations between at least one first logical unit accessed by said host device and at least one intermediate logical device are set,

wherein said intermediate logical device is related to a second logical unit of said second controller by a virtualization setting function of said first controller,

wherein said first logical unit is related to a first logical unit number (LUN),

wherein said second logical unit is related to a second LUN, and

wherein said first and second LUNs logical-unit numbers are different from each other and become related according to the mapping, and

wherein said first controller obtains path information indicating a path from said first LUN to said second LUN via said intermediate logical device, and recognizes a memory device as a same memory device if a plurality of paths from said first LUN to a plurality of said second logical units are connected to said memory device.

2. (previously presented) A system having a first controller of a virtualization system, and a second controller of a disk array system, said second controller being coupled to said first controller, said system performing data processing according to a request from a host device, said first controller comprising:

a memory having stored therein information which maps relations between at least one first logical unit accessed by said host device and at least one intermediate logical device,

wherein said intermediate logical device is related to a second logical unit of said second controller by a virtualization setting function of said first controller,

wherein said first logical unit is related to a first logical unit number (LUN),

wherein said second logical unit is related to a second LUN, and wherein said first and second LUNs logical unit numbers are different from each other and become related according to mapping, and

wherein said first controller obtains path information indicating a path from said first LUN to said second LUN via said intermediate logical device, and recognizes a memory device as a same memory device if a plurality of paths from said first LUN to a plurality of said second logical units are connected to said memory device.

3. (previously presented) The system according to claim 2, wherein said intermediate logical device is constructed by arranging at least one level

of a first memory, and at least one level of a second memory hierarchically arranged at a level above the at least one level of first memory, and

wherein a memory device in said second controller is mapped to the at least one level of first memory.

4. (previously presented) The system according to claim 2, wherein said first controller further comprises:

a plurality of logical units which can be accessed from said host device through plural paths different from each other,

wherein each of said logical units is related to each of said at least one intermediate device.

5. (previously presented) A storage controller communicably connected to a host device and another storage controller and performing data processing according to a request from said host device, said storage controller comprising:

at least one logical unit accessed by said host device;

at least one intermediate memory hierarchy arranged to connect said at least one logical unit and at least one memory device;

wherein at least one of said at least one intermediate memory hierarchy is connected to the at least one memory device which is arranged in said another storage controller; and

path information obtaining means for obtaining path information to said at least one memory device arranged in said another storage controller,

wherein said path information is recognized as path information to the same memory device when said obtained path information exists in plural.

6. (previously presented) A control method of a system having a first controller of a virtualization system and a second controller of a disk array system, said second controller being coupled to said first controller, said control method performing data processing according to a request from a host device, comprising the steps of:

wherein said first controller conducts mapping such that relations between at least one first logical unit accessed by said host device and at least one intermediate logical device are set,

wherein said intermediate logical device is related to a second logical unit of said second controller by a virtualization setting function of said first controller,

wherein said first logical unit is related to a first logical unit number (LUN), and

wherein said second logical unit is related to a second LUN, obtaining path information to a memory device arranged in said second controller; and

mapping said obtained path information to said intermediate logical device connected to said at least one logical unit accessed by said host device, and

wherein said first and second LUNs logical-unit numbers are different from each other and become related according to the mapping, and

wherein said first controller obtains path information indicating a path from said first LUN to said second LUN via said intermediate logical device, and recognizes a memory device as a same memory device if a plurality of paths from said first LUN to a plurality of said second logical units are connected to said memory device.

7. (previously presented) A computer program, stored on a storage medium, for performing data processing according to a request from a host device in a system having a first controller of a virtualization system and a second controller of a disk array system, said second controller being coupled to said first controller, said computer program when executed causes said system to perform the steps of:

 wherein said first controller conducts mapping such that relations between at least one first logical unit accessed by said host device and at least one intermediate logical device are set,

 wherein said intermediate logical device is related to a second logical unit of said second controller by a virtualization setting function of said first controller,

 wherein said first logical unit is related to a first logical unit number (LUN), and

 wherein said second logical unit is related to a second LUN, obtaining path information to the memory device arranged in said second controller; and

mapping said obtained path information to an intermediate logical device connected to said at least one logical unit accessed by said host device, and

wherein said first and second LUNs logical unit number are different from each other and become related according to the mapping, and

wherein said first controller obtains path information indicating a path from said first LUN to said second LUN via said intermediate logical device, and recognizes a memory device as a same memory device if a plurality of paths from said first LUN to a plurality of said second logical units are connected to said memory device.

Claims 8 and 9 (canceled).